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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,442	10/28/2003	Andrew James Dallas	758.1046USC2	6769

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Attention: Mara E. Liepa  
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Minneapolis, MN 55402-0903

EXAMINER

LAWRENCE JR, FRANK M

ART UNIT	PAPER NUMBER
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1724

DATE MAILED: 02/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/696,442	<b>Applicant(s)</b> DALLAS ET AL.	
	<b>Examiner</b> Frank M. Lawrence	<b>Art Unit</b> 1724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Priority***

1. This application repeats a substantial portion of prior Application No. 10/217,375, filed August 12, 2002, and adds and claims additional disclosure not presented in the prior application. Since this application names an inventor or inventors named in the prior application, it may constitute a continuation-in-part of the prior application. Should applicant desire to obtain the benefit of the filing date of the prior application, attention is directed to 35 U.S.C. 120 and 37 CFR 1.78. In particular, page 4, line 9 to page 5, line 10 and the corresponding claims have been added to the specification.

### ***Oath/Declaration***

2. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

The specification to which the oath or declaration is directed has not been adequately identified. See MPEP § 602. The specification identified is that of application no. 09/660,127, however the instant specification is different as detailed in paragraph 1 above.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 11, 13, 14, 20, 21 and 24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter

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which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The term "absorbent" has not been described in a way that distinguishes it from the carbon "adsorbent" described in the remainder of the specification and claims. For examination, it is assumed that "adsorbent" is intended.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 11, 13, 14, 20, 21 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. As discussed in paragraph 4, the term "absorbent" is indefinite because it is unclear what is being claimed and the definite term "adsorbent" is used in the rest of the application.

### ***Double Patenting***

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 1-5, 7-9, 11-14 and 17-20 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 5-8, 12, 14, 15, 17 and

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21 of U.S. Patent No. 6,638,339. Although the conflicting claims are not identical, they are not patentably distinct from each other because one skilled in the art would understand that the portions of the instant claims that are recited in the patented claims are capable of functioning without a housing.

9. Claims 1-5, 7-9 and 11-24 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 6, 10, 11, 13 and 14 of U.S. Patent No. 6,432,177. Although the conflicting claims are not identical, they are not patentably distinct from each other for the same reason discussed in paragraph 8 above.

***Claim Rejections - 35 USC § 102***

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1-3, 7-9, 11, 12, 17, 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by the Japanese reference (JP 60-054177 A).

12. JP '177 teaches a fuel cell system, comprising a fuel cell (2) having an oxidant inlet, a filter assembly having an inlet side for receiving dirty oxidant gas, a filter element (20) including a solid, rounded activated carbon filter and electret filters for removing dust and poisoning substances from the oxidant gas, and an outlet side connected to the oxidant inlet of the fuel cell (see figures, abstract). The activated carbon filter is inherently capable of removing substances such as those listed in instant claim 9.

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13. Claims 1-3, 7-11 and 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakanishi et al. (4,595,642).

14. Nakanishi et al. '642 teach a fuel cell system, comprising a fuel cell (21) having an oxidant inlet, a filter assembly including a dust filter (25) with an inlet for receiving dirty oxidant gas, solid zeolite molecular sieve filter beds (27) for removing gases other than oxygen and argon from air, a hydrophobic layer in a water separator (34) and an outlet for supplying cleaned oxidant to the fuel cell (col. 2, lines 48-55, col. 3, lines 7-57, figures 1-2). The zeolite is inherently capable of removing substances such as those listed in instant claim 9 because they will be present in an air stream that is treated. The zeolite is periodically regenerated by pressure reduction to release adsorbed contaminants (col. 3, lines 35-41), although one skilled in the art would understand that a zeolite can not be completely regenerated, leaving some of the contaminants adsorbed.

15. Claims 12, 13, 15 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Kinkead et al. (5,626,820).

16. Kinkead et al. '820 teach an air filtering system including an inlet for receiving a dirty gas stream, an outlet that is capable of being connected to any device requiring cleaned air, a particulate HEPA filter (24), and chemical filters that can include activated carbon that is impregnated with an acidic or basic substance for removing basic or acidic contaminants, respectively (figures 1A-1C, 3, 7, col. 4, lines 55-62, col. 5, lines 15-26, col. 6, lines 8-18, col. 10, lines 10-24).

***Claim Rejections - 35 USC § 103***

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claims 4-6, 14 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP '177 in view of Berger et al. (3,217,715).

19. JP '177 discloses all of the limitations of the claims except that the activated carbon is granulated or is curved and extruded. Berger et al. '715 disclose an activated carbon filter for removing contaminants from a gas stream, comprising granulated activated carbon that is mixed with a binder and extruded into a cylindrical shape (figures, col. 5, lines 39-57, col. 6, lines 49-67). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the activated carbon filter of JP '177 by using a curved, extruded granular activated carbon in order to provide a filter that can be employed with wider pressure drop limits, more diversified filtration properties, and increased ability to retain solids (col. 2, lines 16-38).

20. Claims 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP '177 in view of Kinkead et al. '820.

21. JP '177 discloses all of the limitations of the claims except that the activated carbon is impregnated with an acidic surface or a basic surface. Kinkead et al. '820 disclose an air filter as described in paragraph 16 above. It would have been obvious to one having ordinary skill in the art at the time of the invention to impregnate the activated carbon with acidic or basic substances

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so that the filter can be specifically tailored to remove desired target contaminants from the dirty gas stream (see Kinkead et al. col. 9, line 65 to col. 10, line 5).

***Conclusion***

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The additional references listed on the attached PTO-892 form disclose air filters for fuel cell systems.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank M. Lawrence whose telephone number is 571-272-1161. The examiner can normally be reached on Mon-Thurs 7:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Frank M. Lawrence  
Primary Examiner  
Art Unit 1724

*Frank Lawrence*

2-16-05